Forestry Division

It is an old rule of thumb that it takes forty inches of rain to grow trees. Like all such rules, it is an oversimplification, but if you look at a map of the United States you will find that the great prairies and the eastern deciduous forests essentially come together along the forty-inch rainfall line, which lies right across Missouri. Much of northern and western Missouri was prairie in pristine times, much of eastern and southern Missouri was forest-that area we generally refer to as the Ozarks. The forests and the Ozarks are inextricably bound together.

It is difficult to recall, when driving through the Missouri Ozarks these days, exactly how the tree-girt hills looked fifty years ago. Old timers, searching their memories, remember especially two things: rocks and broomsedge. The hillsides were white with exposed rock, among which a few scraggly trees stood. These things were the symbols of a century of abuse and they were everywhere.

Even thirty-five years ago one could see fence rows filled with rocks that had been laboriously carried by the farmer off his fields. Or perhaps there were huge piles of rocks in one area of the field. The soil, never very deep or very fertile, had been washed off the

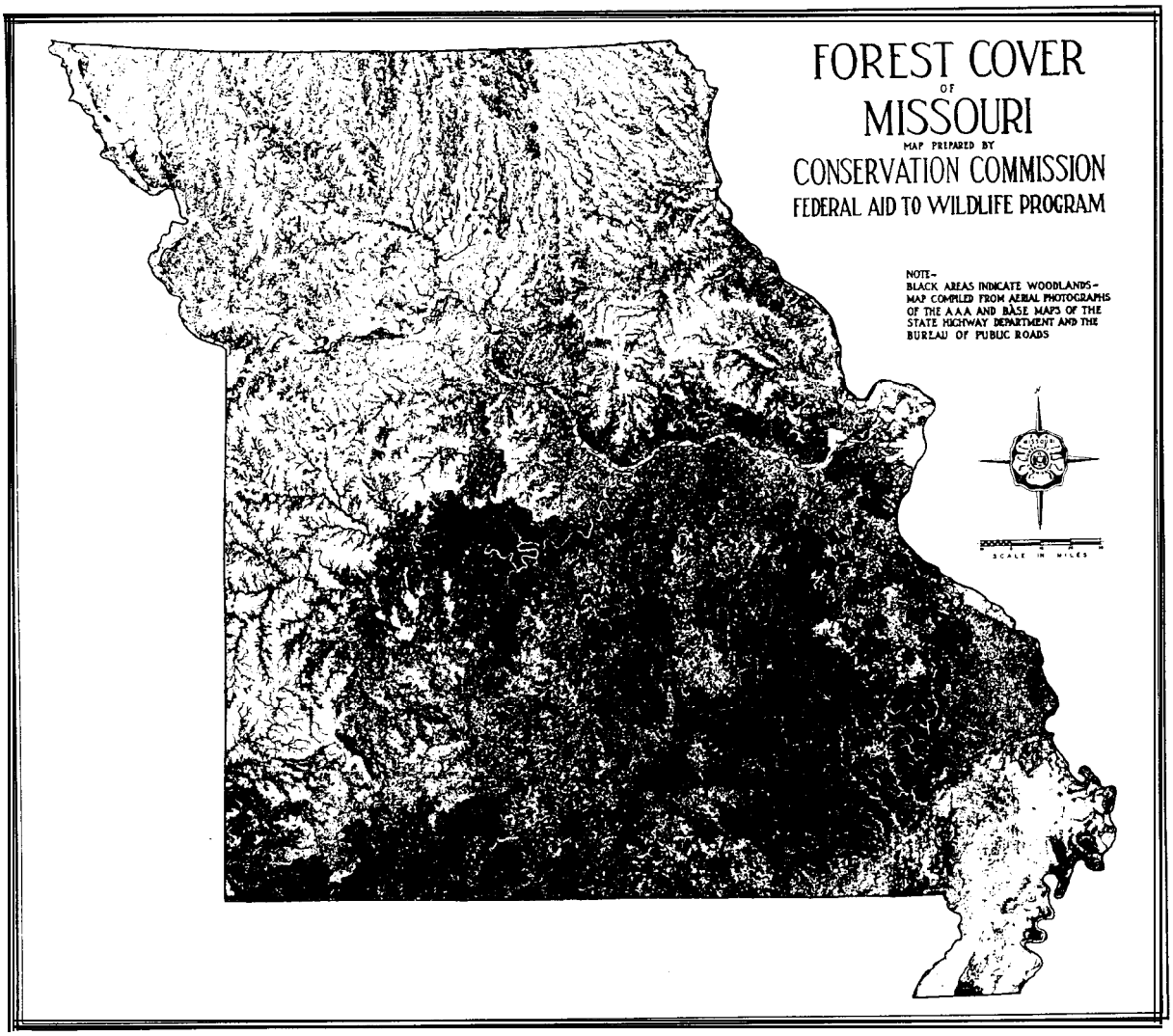
An effort in 1941 to halt erosion led to widespread planting of ***black locust****, whose roots anchored* ***fragile*** *soil.*

slopes to choke the steams below, leaving the bare bones of the Ozark hills as rocky reminders. What fertility existed in the thin soils was also gone, and the old crops were replaced by broomsedge, the indicator of worn-out Ozark soils.

Historical writings tell of majestic forests, open enough beneath the towering trees to drive a buggy through them. In 1857, Father John Joseph Hogan, trying to locate some land in the eastern Ozarks where Irish immigrants might settle, rode horseback without too much difficulty from south of Ironton to the area that is now Carter and Oregon counties. The area where that settlement started is now referred to as the Irish Wilderness.

It was a mature forest, its canopy closed to shade out the ground below, so understory plants had a hard time growing. Wildlife associated with mature forests include bear, wild turkey and passenger pigeon. Old accounts telling of large populations of deer would indicate that not all the Ozarks was closed, mature forest, because deer need what biologists call edge, with plenty of browse to thrive.

Not all the Ozarks grew large trees or wildlife. Henry Rowe Schoolcraft wrote of journeying across the Ozarks from Potosi to

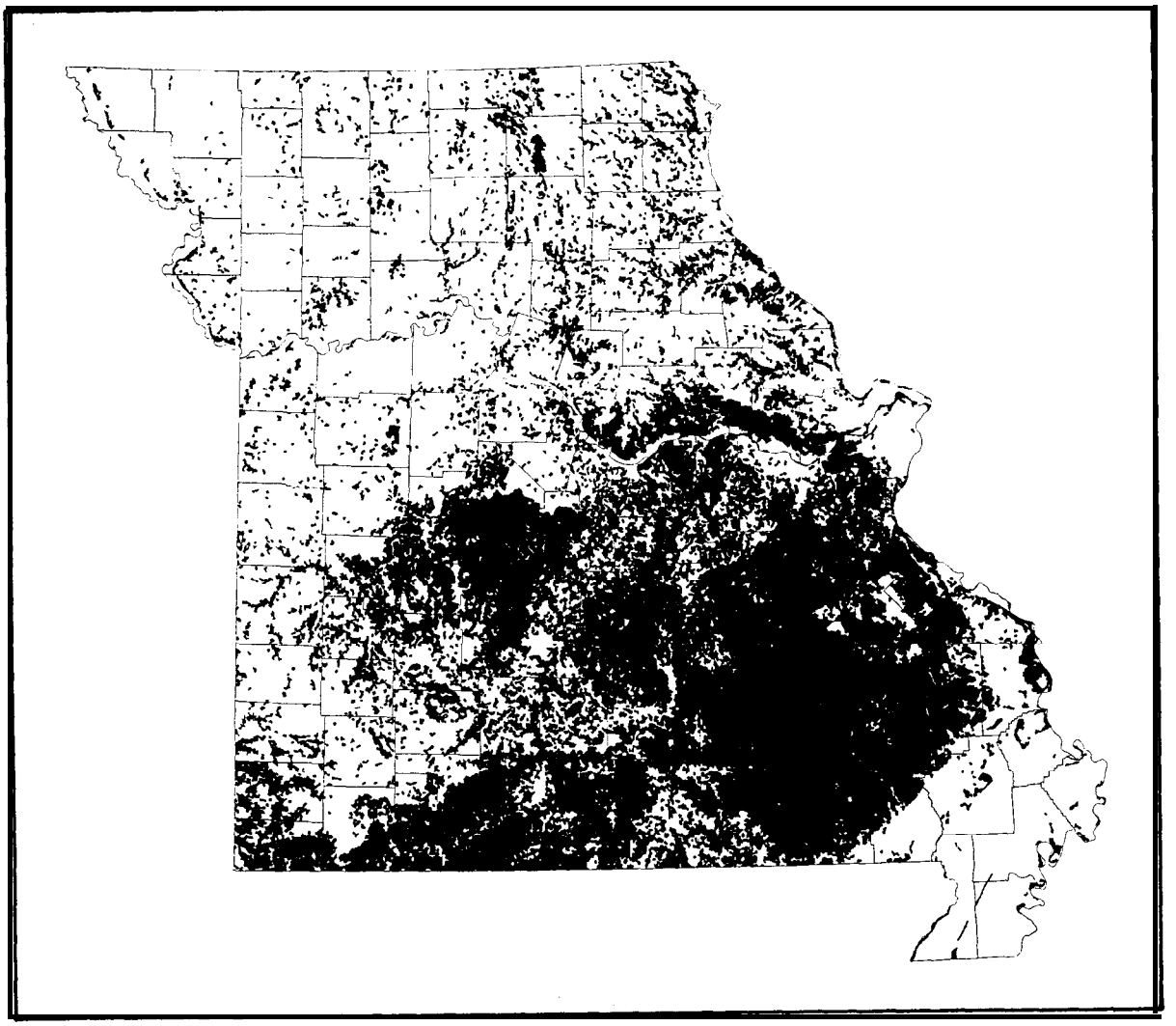


A 1942 Forest Cover Map shows the decline in forests from presettlement times, when about seventy percent of Missouri was forested.

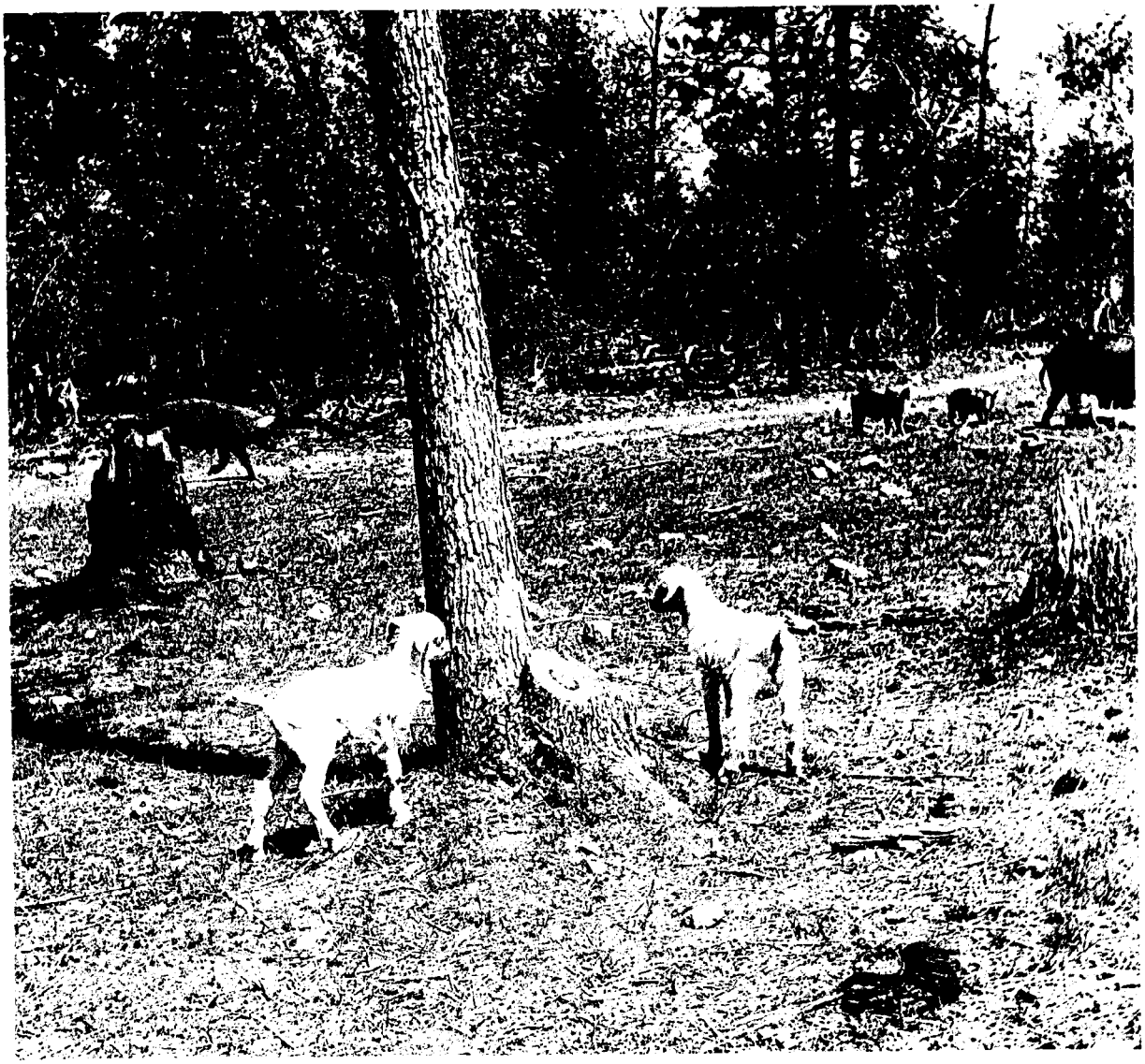
the White River country in 1818. He found large expanses of oak brushlands where he nearly starved as he tried to live off the land. Usually these brushlands were on soils underlaid with a clay pan that prevented trees from attaining much growth. They are not productive forest lands even today. In general, the heavily forested areas of the Ozarks were the hillsides and bottoms. Much of the uplands were more open, with balds and even prairie stretches in places, according to early survey notes.

The central Ozarks was among the last land to be settled, but even before the 1850s, hardy pioneers were subsistence farming along the rivers, and trapping and hunting to eke out a living. The timber was essentially worthless because of the distance to markets and was used only for cabins, fences and fuel. Livestock was permitted to run at large in the woods, to feed on the abundant mast.

The Indians annually burned some of the Ozarks to improve conditions for hunting and the settlers continued the practice, to improve grazing, and to keep down snakes, ticks and chiggers.



The state has lost over half its forests since *presettlement. Satellite imaging was used to make this 1986 Forest Cover Map which shows noticeable declines in forest areas in the Bootheel, St. Louis County and southwest Missouri.*



Livestock roamed at will during the days of open range, which persisted longest in *the Ozarks. Here goats and hogs freely explore a county roadside.*

Exploitation of the timber in some of the Ozarks adjacent to the larger streams, such as the Gasconade, began as early as 1818. Timber was cut and floated down the Gasconade to the Missouri River and to St. Louis. By 1852, the Gasconade Valley was considered cut over.

Timber cutting in the mid-1800s was two-thirds pine and only one-third hardwoods. By 1909, this had shifted to seventy-three percent hardwoods, as the major pine woods had already been cut off.

It wasn t until the late 1800s, with the coming of railroads, that lumbermen began exploiting the deep Ozark forests.1 They cut the better hardwoods and a major part of the pine, extending railways back into the hills and floating great rafts of logs out of

1 The forests around Potosi and the eastern Ozarks from the Mississippi River to St. James were cut off by the mid-1800s for charcoal used in smelting lead and iron ore.

the hills on the rivers. The hill men became timber cutters and for a brief span a whole way of life grew up around the tie rafter, who lived aboard his moving mass of railroad ties that floated down the rivers to rail points.

The sawmill at Grandin in Carter County was said to be the largest lumber mill in the state, possibly the nation, in 1887. Three lumber companies, between 1888 and 1903, cut a total of 1.3 billion board feet of lumber. In those days they cut only trees fourteen inches and larger, and only to the first limb—high grading it was called. When the great mills closed down they left the people who, trying to eke out a living, further impoverished the land. The Ozarks reached its highest human population levels when the lumber mills were at full operation.

The combination of timber harvest, large numbers of free-roaming livestock and annual burning had a major effect on Ozark soils, streams and, of course, wildlife. Forest wildlife was hunted year-round and it dwindled as the forests were cut over and competition from livestock reached a peak. By the 1930s, only about 2,000 deer were thought to exist in the state and turkeys declined to a few thousand birds in scattered flocks. For all practical purposes, bear, ruffed grouse and passenger pigeons ceased to exist, and most other species were in dire straits.

All that, of course, has changed. Now, the Ozark hills are covered with trees and the streams again run steady and clear. So successful have been the forestry programs that we have created wildernesses of what once were nearly barren hills. Anyone who can remember what the Irish Wilderness looked like fifty years ago will smile at calling this a wilderness. Its pristine look today is the result of a lot of hard work in stopping fires and upgrading the existing timber.

Forest wildlife has come back to the Ozarks to a point where it can easily become a nuisance if not carefully controlled. Improved pastures have replaced the tawny fields of broomsedge. The story of this comeback is a tribute to those who worked so long and with such dedication, in many ways, to heal the scars of a century of forest rape and ruin.

Elsewhere in Missouri the forests had a different (but just as devastating) history. Around settlements, forests were cut off for homes, fences and firewood. When the steamboats came after 1815, they utilized tremendous amounts of wood for fuel, and forests close to rivers were quickly cut off. The expansion of railroads after the Civil War created a demand for both fuel and ties. After forested areas on the fringes of the Ozarks were cut over, lumber companies penetrated the Ozarks to exploit forests there. Missouri s last forest area to be cut was the great swampland of the southeast.

The restoration story begins in 1924, when Congress passed the Clarke-McNary Act, which offered federal funds to states with forestry programs. The next year the Missouri legislature created an office of state forester (Frederick Dunlap) within the Department of Agriculture and appropriated enough money to hire one district forester, Paul Dunn.[2] A forest fire protection district was set up in Reynolds County. Forester Dunn recalls climbing a lookout tower one spring day and seeing fire at all points of the compass. Controlling fire seemed a hopeless task.

In 1931, possibly because of the Great Depression, the legislature neglected to appropriate any funds for forestry. The forestry division was abolished and the state forester, Frederick Dunlap, resigned in despair. An official report signed by him concluded that it was impossible to establish forest fire control in the Ozarks.

There was no forestry program in Missouri for a number of years, but a group called the Missouri National Forest Association successfully lobbied a bill in 1929, which was enabling legislation to permit the federal government to acquire land in the state for a national forest.[3] It restricted the acreage that

2 Dunn later went on to a distinguished career as dean of the forestry school at Oregon State University, a vice-president of St. Regis Pulp and Paper Co., and president of the Society of American Foresters.

3 In 1911, Congress had passed the Weeks Law, permitting the U. S. Forest Service to set up national forests in the eastern, central and southern U. S. This did not affect Missouri until the state passed a law permitting the federal government to acquire lands.

A *Maries County* hillside *cut over for grazing in 1946.*

could be acquired in any one county, so purchase units were drawn up that included the corners of several counties in order to purchase large enough blocks of land to be practical. This restriction was later removed.

Eight purchase units were set up in 1934-35-the eastern four made up the Clark National Forest and the western four made up the Mark Twain-and the national forests became a reality.4

When the new Conservation Commission was created in 1936, it was a wise decision of the founding fathers to include forestry in the constitutional amendment. Sydney Stephens credits J. T. Montgomery, who broadened the outlook of those drafting the amendment to look beyond hunting and fishing. It was a master stroke to revive state forestry and bind it inextricably to wildlife and fisheries, which ensured its future. There was no way forest wildlife could be brought back without control of wildfire, so a forestry program was essential to a wildlife program in the Ozarks.

In March, 1938, George O. White was hired from the U. S. Forest Service to be state forester. He saw that the first thing that had to be done was control fire. To help accomplish that he needed an educational program to make landowners aware of the economic potential of their woods. He would need nursery stock to get trees planted for reforestation, and a system of timber management. What was necessary was evident, but it would be years before his vision would bear fruit.

On the 27th of June, 1938, he hired the first four graduate foresters to begin the impossible task of controlling forest fires on both private and public lands in the Ozarks. Four protection districts were organized:

Meramec District, 435,490 acres, headquarters Sullivan, under William E. Towell; **Sam Baker District, 424,490** acres, headquarters Piedmont, under Arthur B. Meyer; **Lake Ozark District,** 473,720 acres, headquarters Camdenton, under Edward J. Seay; **Eminence District,** 623,890 acres, headquarters

4 National forests in Missouri have undergone several name changes. All national forest holdings in Missouri are now Mark Twain National Forest.

Eminence, under August H. Schmidt.

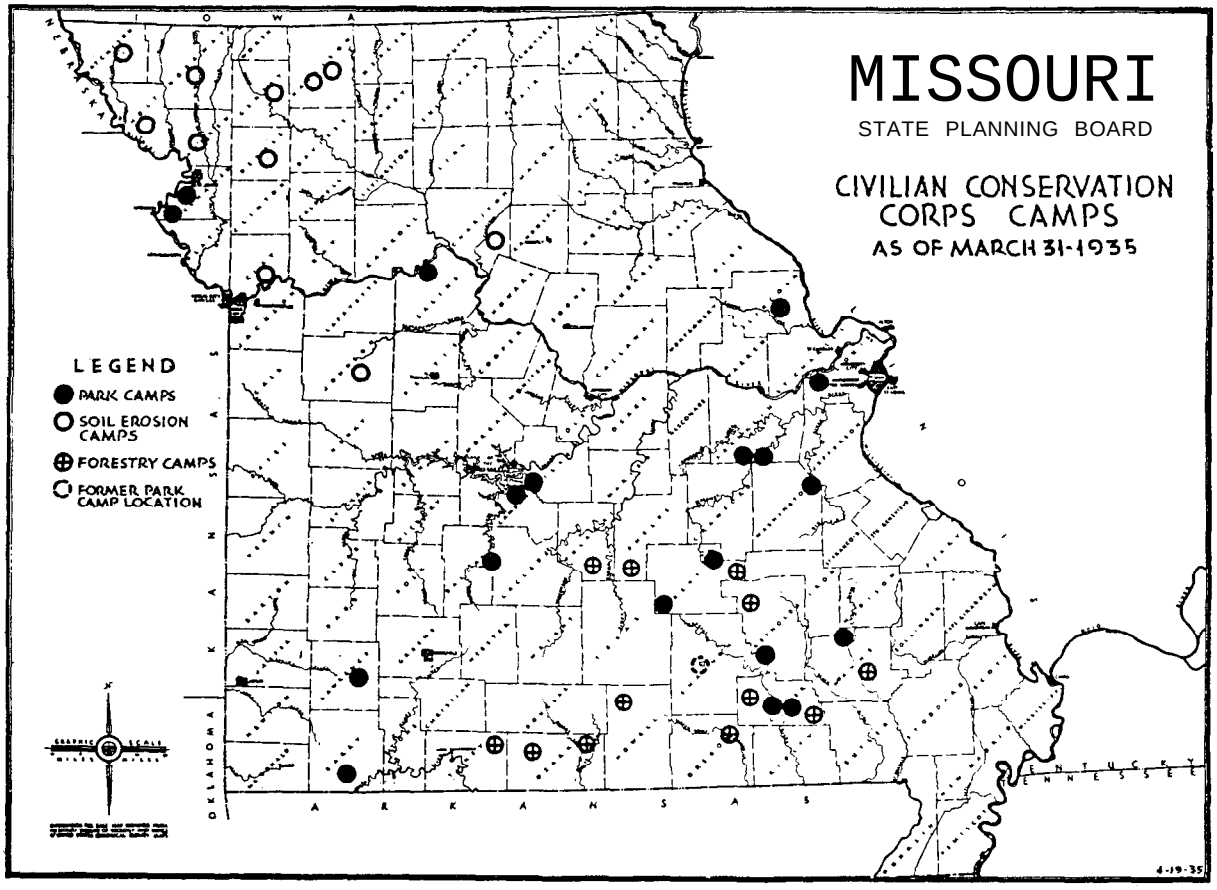
A fifth district, Deer Run, 422,440 acres, headquarters Ellington, under Charles Kirk, was established a few months later.

The forestry budget was limited to fifteen percent of the Department s revenue, and in 1938 this only amounted to $15,799. At first the fledgling foresters couldn t hire firefighters and had to seek volunteers to help control blazes that swept their districts. Where there were CCC camps, enrollees were of great help. But in many places fires had to be ignored while puny efforts were expended on protecting lands of cooperating landowners.

There were few lookout towers in those days. When a U. S. Forest Service inspector told George White that more were needed, White answered, We are not able to fight all the fires that our towers are reporting now!

The unsung heroes of the early days of fire fighting are the lookout towermen who actually fought the blazes. Hired locally, they faced an uphill battle against public sentiment and the fires. Yet they conscripted help when they could-fought alone when they could not-armed only with broom rakes and back packs. When they weren t fighting fires they were arguing with their neighbors, trying to convince them that the woods were worth protecting. For all this they were paid only $50 a month, but they were provided with two-bedroom houses adjacent to their lookout towers at nominal rent, and a pickup truck. They managed a living by keeping a few chickens and maybe a cow or pig.

In the days before two-way radios, foresters got word of fires by rural telephone—never too reliable-and occasionally by mail.



A 1935 map shows the location *and duties of CCC camps.*

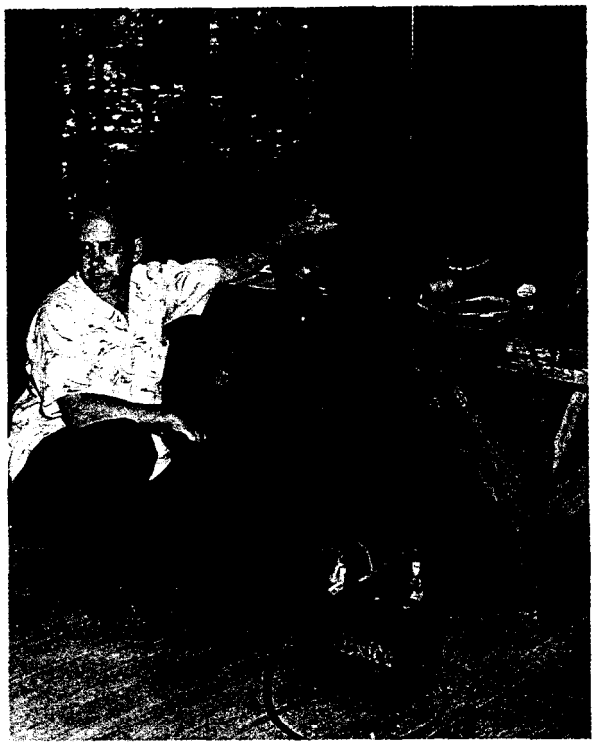
Lookout towers were tools *of the trade for foresters determined to control wild*fires. *The Goodman Tower, first built of wood in 1948, was replaced* with *this steel tower in 1959.*

One old forester recalls getting a post-card from a forester on an adjacent district that read: This is to inform you that you have had a fire burning on Range so-and-so, Township so-and-so, since last Tuesday.

Even when two-way radios became available they were unreliable old models. To use one you put it on the tailgate of your truck, attached a wire antenna, tied a rock on one end of the antenna and threw it over a tree limb. Then, perhaps you might be able to reach another forester a few miles away. In the excitement of a hot fire, you might hastily drive off in your truck, leaving the radio dangling from its antenna. It happened, more than once.

Obviously the new foresters had to educate the public if they were to be successful. They spent as much of their time as they could spare visiting landowners. They attempted to sell them on the worth of fire control and solicit their cooperation in controlling fires, so some form of timber management could be applied. It was not an easy job to offset the habits of generations. One educational technique used was to hire high school boys as fire crews. They got a lot of education at the end of a broom rake.

In 1938, White sent a panel truck into the field with an electric generator to show motion pictures on fire prevention. In those days the REA had not yet penetrated the deep



The two-way radios of the 1940s were clumsy, unreliable devices, but heralded the age of modern communicationsforesters now enjoy.

Ozarks and folks came from miles around to see the movies. The Showboat succeeded in securing public understanding and support and continued in use until the 1950s. Still, it took a number of years before much headway was made. Spring burning continued to be a nightmare for men on the districts, who fought fires round the clock time and again. Fire laws might be enacted, but few Ozark juries would convict a woods burner, who might be a relative or neighbor of the judge and jury. Only time and education would bring this about.

It wasn t until December, 1940, that a separate Forestry Division within the Department was created. The Division grew slowly as more funds became available from the Department and federal assistance. The first real break came in 1946, with the passage of the State Forestry Act. There had been growing concern about the use of hunting and fishing license revenues as a major source of forestry funding. In the annual report for 1943, George White wrote: If the Conservation Commission is to carry on a forestry program equal to the importance of the resource, it must have funds from the people of the state to supplement monies provided by hunters and fishermen.

Over ninety percent of forests were small tracts in private ownership. White believed that these landowners needed some incentive if any headway was to be made in securing sound forestry practices. The Sixty-third General Assembly agreed, and part of the State Forestry Act provided for an owner to classify timber tracts as forest cropland for a period of twenty-five years. The incentive was to lower and defer annual taxes during that period if the landowner agreed to control fire, combat timber theft and practice good timber management.5 The Act also provided for reimbursing the counties for lost revenue on classified lands. Funds for this were made available through the Forestry Division from general revenue. The first year, fifty-one owners classified 23,587 acres under the program.

In recognition of the importance of sound forestry practices to the state s economy, the legislature began to appropriate funds from general revenue for forestry purposes—$150,000 in 1946-47. The additional monies accelerated forestry programs. By 1946, there were seven fire protection districts covering three million acres in twenty-two counties. There were agreements with 3,116 landowners who owned 1,098,648 acres of private lands. In addition, there were six farm forestry districts. Forest fires had burned three percent of the protected lands that year, and sixteen million acres remained outside protection districts.

But progress was being made. By 1955, it became evident that a way of life had changed in the rough Ozark counties. Fires had been reduced to one percent of the protected areas. People began to notice the

5 Timber theft (or "grandmawing," as it was called from the practice of telling mill owners that stolen timber sold to them came from "Grandma's place,") was believed to be second only to fire as a deterrent to private forestry development.

One way to educate residents not *to burn the woods was to hire high school boys to fight fires. This 1943 photo shows one such crew with Forester Robert O. Danson. Danson was in charge of the Meramec fire protection district and went on to manage the nursery at Licking.*

recovery of the Ozark forest due to fire control. Many of those who advocated burning in 1938 were now staunchly against it. It was possible to get convictions in the courts for fire setters. By 1967, there were thirteen fire protection districts embracing ten million acres. The impossible had been achieved.

In 1961, the Forest Service increased funds to states to further expand services in the areas of utilization and marketing. Because most timber management that is accomplished on private lands is done through timber sales, the utilization and marketing specialist was available to coordinate and broaden the farm forester s knowledge and efforts in marketing. In addition, a major effort was made to assist forest products industries with better utilization and marketing. This began as a one-man operation but was expanded to the present four-man staff in the late 1970s.

Today the entire state is covered by seventeen forestry districts. Woods fires still occur, but they are fewer and the acreage lost is but a tiny fraction of the acreage under protection. Lookout towers that once dotted the landscape are gradually disappearing, their usefulness a thing of the past. A first line of defense in many areas now are rural fire departments. Since 1964, the Department has provided equipment and training to these firefighters, the equipment made available through the Department from military surplus. The Department and federal government each put up $lOO,OOO annually toward training and development of rural fire departments.

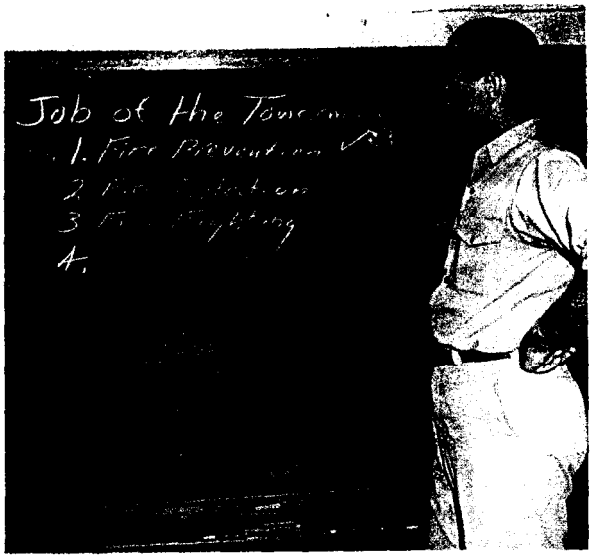
In 1939, the Soil Conservation Service proposed establishing farm forestry positions

to help landowners manage their woodlands better and the next year Arthur B. Meyer became the state s first farm forester at Warrenton. His salary was paid by the SCS and his expenses by the Department. A short time later William E. Towell became farm forester at Kirksville. It was another effort to educate Missouri landowners about the worth of their timber.6

During 1942, Congress passed the Norris-Doxey Act as a wartime measure, authorizing the Forest Service to start its own farm forestry program. Costs were shared equally by the states and the federal agencies. As a result, two new projects were begun, this time in southern Missouri. In 1946, the Forest Service took over administration of all such projects, and by 1950 there were twelve farm forestry projects in the state. Under the Norris-Doxey Act farm foresters could work only with woodland owners, but in 1951, Congress passed the Cooperative Forest Management Act that authorized them to also work with manufacturers of forest products and on state lands. This greatly expanded the farm forestry program.

With wildfires finally under control it was important to upgrade the quality of Missouri forests. A 1949 survey had shown that two out of five trees in the state were culls and the rest young growth. Farm forestry programs set to work to clean out the culls-by sales, if a market could be found for the products. This gave a boost to the charcoal and pallet industry. Landowners got help in woodland improvement through the Agricultural Conservation Program, a federal cost-sharing plan.

Today farm foresters are called resource foresters and there are thirty-eight of them providing free services to Missouri timberland owners in all parts of the state. They also manage timber on state lands and work to bring forest products manufacturers together with timber growers. They work closely with others in the Department so their management plans also provide for forest wildlife and recreation.



William E. Towell, assistant state forester for fire control, instructs a course for Forestry Division employees in 1951.

When the Forestry Section began functioning in 1938, it had inherited about 34,000 acres of forest lands. These were lands purchased to become state parks, using hunting and fishing license money. None of the timber lands in the Shannon-Reynolds-Dent counties area had any park development. Their chief function had been as wildlife refuges and in the early years they played an important part in deer and wild turkey restoration programs. State Forester George O. White undertook to build a state forest system and gradually acquired lands that were used as demonstration areas of what fire suppression and good timber management could do.

Sale of timber from state forests helped provide jobs and aided the local economy. The first timber sale from state forest land followed a disastrous Easter Sunday fire in 1941. That day s fires may have been the worst in Missouri history. It was estimated that perhaps a third of the Ozarks burned that Sunday, with a great loss to buildings as well as woods. The timber sale was a salvage operation and the volume harvested amounted to 405,000 board feet of saw timber and 5,485 feet of stave bolts that netted the De-

6 It may seem odd that the first farm forester positions were in north Missouri, but this was because the SCS had no projects in southern Missouri at that time.

Foresters who took a sawmill shortcourse in *the* fall *of 1950 were, front row, left to right: David Bauch, Burl Ashley, Thorne Longsworth, L. E. McCormick, Roy Degler, Carrol Fisk. Back row: Lloyd Grapp, Bob McComb, Les Tschannen, John Kullman, John Wylie, Martin Grau, Bob Raisch, Ed Glaser, Earl Priegel, Dick Holekamp, George Lodge, J. M.* **Nichols** *and George O. White.*

partment $1,700. Income from state forest timber sales has grown as management provides more and better trees, and helps keep local timber operators in logs, posts and poles. Cuts **are** made with due consideration of wildlife and esthetic values as well. Income from state forests also comes from mineral exploration.

As state forest holdings increased over the **years,**[7] they joined the national forests in providing free public recreation-hunting, fishing, hiking, camping and nature study.

White believed that if landowners could be induced to plant trees-and there were a million acres that needed trees to be more productive-it would help prevent woods fires. Nothing can anger a landowner more than to see trees that he laboriously set out by hand swept by wildfire. A nursery was started in 1940, adjacent to Meramec State Park on lands retained by the Conservation Commission, and in 1942 the Department took over operation of the Forest Service nursery at Licking. Robert O. **Danson,** a forester for the CCC in the **1930s,** became the first nursery chief.[8]

An agreement was drawn up with the University of Missouri s Extension Service whereby county extension agents would take seedling orders on forms provided by the Department and transmit them to the state forester. Shipping orders were sent to the nursery, the seedlings bundled, and delivery made to a central point in each county at

[7] State forest acreage now totals nearly 300,000 acres. Efforts since 1977 have been to acquire holdings close to metropolitan areas to make forest recreation available to more urban dwellers.

[8] Danson served from 1942 to 1961. He was followed by Delbert G. Mugford, who retired in 1982. William G. Yoder now heads the state forest nursery.

First State Forester George O. White at DuPont in April, 1946.

planting time. Nowadays, landowners may pick up order forms from extension offices or district forestry offices and send them directly to the nursery. Deliveries are made via UPS directly to the landowner.

At first, seedlings grown in the Meramec and Licking nurseries were for reforestation and windbreak plantings, but these varieties were increased to meet wildlife needs. The first year of distribution, 628 landowners ordered 1,055,000 seedlings. By 1967, some 42,381 wildlife food and cover plot bundles, containing 13,321,400 seedlings, were distributed. In addition, nurseries that year produced 86,207,000 multiflora rose seedlings and 3,322,000 shrub lespedeza seedlings, plus mulberry, pecan, pin oak and autumn olive seedlings-all useful wildlife plants. Today the nursery produces about ten million plants annually for an average of 15,000 landowners. Since 1983, the nursery has also been producing prairie wildflowers for use in prairie restoration work.

The nursery at Licking has been expanded over the years; the Meramec nursery was closed in 1962. State Forester White retired on January 1, 1960, and the Licking nursery, which he had located and laid out for the U. S. Forest Service many years before, was officially named the George O. White State Forest Nursery to honor him.9

When White retired in 1960, the things he had set out to accomplish had largely been realized. Forest fire control was no longer a major problem, with less than one percent of protected land burned each year. A strong state forest program was in place, and timber management on both state and private lands was achieved. Open range was on its last legs, to fade away finally in 1969. But forestry couldn t rest on its laurels. Missouri s forests still needed upgrading, though old, fire-scarred

9 White served from 1938 to 1960. Other state foresters were Osal B. Capps (1960-77), Jerry J. Presley (1977-86) and David D. Hurlbut (1986-present).

The nursery at Licking was officially named the George O. White State Forest Nursery in 1960 to honor White, above, on his retirement.

Open range finally faded from the scene in *1969, much to the benefit of Ozark forests.*

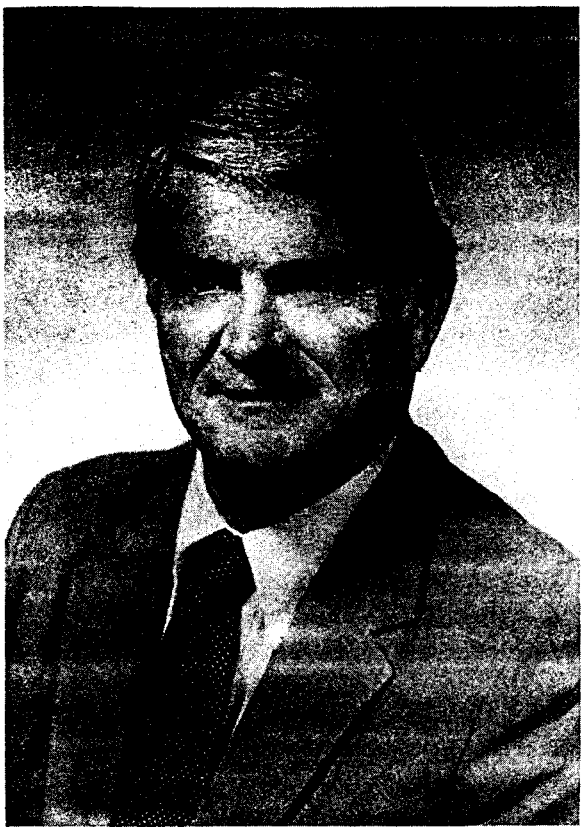
trees were fading from the scene. The state s economy was profiting from fire control and good forestry management, but watersheds still needed protection and education was a continuing effort.

One educational tool that had a profound effect on Missouri youth was an Arbor Day program. Beginning in 1968, seedling trees were given to about one-third of the fourth grade youngsters in the St. Louis schools. This was expanded to include fourth graders in every school in St. Louis and Kansas City in 1972. Since 1980, every year on Arbor Day, every fourth grade youngster in the state receives a seedling tree which he is urged to take home and plant and care for. Arbor Day informational materials are furnished to the schools and many a young adult today looks back with pride on a towering tree in his yard that began as an Arbor Day seedling years before. In 1982, the National Arbor Day Foundation gave an award to the Department for its Arbor Day program in Missouri schools. In 1985, the one-millionth seedling was distributed to a fourth grader in St. Louis.

Forestry Division administration has taken several different forms over the years, reflecting the growth of the program and the gradual changes brought about. After World War II, White appointed two assistant state foresters: William E. Towell for fire protection, and Arthur B. Meyer for timber management.[10] Later, a third assistant state forester position for administration and nursery supervision was created, filled by Gus Hoyer and later by Jerry J. Presley.

To better implement the Design *for* Conservation, Forestry reorganized again in the 1970s, with one assistant state forester, Kerwin F. Hafner, and four supervisory specialists: Robert A. Massengale for marketing and utilization; Eugene L. Brunk for state land management; John R. Kullman for fire protection; and Clell E. Solomon for cooperative forest management. Today, Forestry Division has three major units: field operations, headed by Hafner; staff development and coordination, headed by Brunk; and administration and nursery supervision, headed by Marvin D. Brown.

[10] Over **the years, Towell was succeeded by Osal** B. Capps, Lee C. Fine **and Kerwin F. Hafner. Meyer s timber management post was filled successively by Milton G. Gus Hoyer and John E. Wylie.**



George **O. White** *created the post* of *assistant state forester* for *administration and nursery supervision. Gus Hoyer, right, first filled the position, followed by Jerry J. Presley, left. Presley went on to become state forester in 1977.*

Interest in forests has increased and to meet demands Forestry Division has come up with new programs and services. Osal B. Capps, who succeeded White, had a keen appreciation of the public s changing needs in forestry, and he began many new services to meet those needs. Forestry Division now has a full-time forest entomologist and pathologist to assist in problems of forest insects and diseases. A forest geneticist works at developing better specimens of trees. A forest products marketing specialist administers a program designed to optimize markets for Missouri wood products.

To help communities preserve and develop their trees, in 1969 the Department began an urban and community forestry program that provides the services of a landscape architect. It provides training programs for utility company crews on the proper ways to trim trees to protect powerlines. It has foresters assigned to the metropolitan areas and conducts seminars for urban owners of rural forest lands, so they can realize the most from their woods.

The Department has established urban forests-Rockwoods Reservation near St. Louis, Bluff Woods near St. Joseph, Burr Oak Woods near Kansas City and Little Sac Woods near Springfield-so that city dwellers have ready access to forest recreation. It has vegetative management contracts with the Corps of Engineers on all impoundment lands to make campgrounds, picnic areas and even parking lots more esthetically pleasing and attractive to wildlife like songbirds and butterflies.

The ultimate goal in all these endeavors is to make Missouri a green and pleasant place, where its trees can contribute to the health, pleasure and well-being of all Missourians and their environment.

In 1972, it was reported that the state lost one million acres of forests over the past ten years. Aerial spraying of herbicides for

Kerwin Hafner became assistant state forester **in** *February, 1965.*

As state forester, Osal B. Capps, top right, initiated forestry programs to keep pace with public need. Among Forestry Division s innovations are urban and community programs and forests like Rockwoods Reservation, bottom left, where Clarence Salty Daniel shows off ***an immature red-tailed hawk to a young visitor in 1969.***

creation of pasture land, clearing for agricultural crops, roads and urban sprawl all took their toll on our forests. Much of this loss occurred in the traditional old forests of the Ozarks, but also included the largely agricultural regions of northern and western Missouri. It was a reminder that change is a way of 1ife.11

But a 1983 survey of wood-using industries in Missouri revealed that 2,000 firms with 33,000 employees who earned $483 million in wages produced goods valued at almost $3 billion.

Forests will remain an important part of

[11] It is interesting **to note that in the 1970s, the largest sawmills in Missouri were not in the Ozarks but in St. Joseph, New Madrid and Perryville.**

the Missouri landscape into the foreseeable future. While forest products will continue to be an important part of the state s economic picture, forests now have equally important esthetic and recreational values. The Department has the programs and the people to serve Missourians in the years ahead, thanks to the vision and groundwork by those who achieved the impossible in forestry.

In 1986, timber products in Missouri generated $582 million and employed 21,000 workers, a result of the management practices initiated by the Conservation Department fifty years ago.